

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

- 1 1. (Currently Amended) A multi-staged services policer comprising:
2 one or more processors;
3 a downstream services policer;[[and]]
4 [[an]]a first upstream services policer to:
5 receive a traffic unit;
6 analyze said traffic unit;
7 based on said analysis, transmit said traffic unit to said downstream services
8 policer; and
9 receive feedback from said downstream services policer; and
10 a second upstream services policer to transmit traffic units received at said second
11 upstream services policer to said downstream services policer based on an analysis specific to
12 said second upstream services policer,
13 wherein said downstream services policer is configured to afford a higher priority to
14 traffic units received from said second upstream services policer than to traffic units received
15 from said first upstream services policer.
- 1 2. (Original) The multi-staged services policer of claim 1 wherein said feedback from said
2 downstream services policer is an indication of available bandwidth.
- 1 3. (Cancelled)
- 1 4. (Currently Amended) The multi-staged services policer of claim 1 wherein at least one of
2 said services policers ~~policies~~is configured to police at an application layer granularity.
- 1 5. (Currently Amended) The multi-staged services policer of claim 1 wherein at least one of
2 said services policers ~~policies~~is configured to police at a data link layer granularity.
- 1 6. (Cancelled)

7. (Original) The multi-staged services policer of claim 1 wherein said traffic unit is a Frame Relay frame.

8. (Original) The multi-staged services policer of claim 1 wherein said traffic unit is a Internet protocol packet.

9. (Cancelled)

10. (Currently Amended) A method of handling traffic units comprising:
receiving, by [[an]]a first upstream services policer, a first traffic unit;
analyzing, by the first upstream services policer, said first traffic unit according to a first policy;
based on said analysis, transmitting, by the first upstream services policer, said first traffic unit to a downstream services policer;
processing, by the downstream services policer, the first traffic unit according to a second policy;[[and]]
receiving, by the first upstream services policer, feedback from said downstream services policer to cause the first upstream services policer to modify analysis by the first upstream services policer of further received traffic units;
receiving a second traffic unit by a second upstream services policer;
analyzing, by the second upstream services policer, said second traffic unit according to a third policy;
based on said analysis of said second traffic unit, transmitting, by the second upstream services policer, said second traffic unit to the downstream services policer,
wherein said downstream services policer affords a higher priority to traffic units received from said second upstream services policer than to traffic units received from said first upstream services policer.

1 11. (Currently Amended) The method of claim 10 further comprising:
2 receiving, by the first upstream services policer, a ~~second~~third traffic unit;
3 analyzing, by the first upstream services policer, said ~~second~~third traffic unit differently
4 from the analyzing of the first traffic unit in light of said feedback; and
5 based on said analysis of said ~~second~~third traffic unit, transmitting said ~~second~~third
6 traffic unit to said downstream services policer.

1 12. (Currently Amended) A computer readable storage medium ~~containing~~embodied with
2 computer-executable instructions which, when executed by a processor in an upstream services
3 policer that is upstream of a downstream services policer, cause the processor to:
4 receive a first traffic unit;
5 analyze said first traffic unit according to a first policy regarding processing of data
6 traffic received by the upstream services policer;
7 based on said analysis, transmit said first traffic unit to said downstream services policer
8 that processes data traffic received by said downstream services policer according to a second,
9 different policy;
10 receive feedback from said downstream services policer;
11 receive a second traffic unit;
12 in response to the received feedback, analyze said second traffic unit differently from
13 analysis of said first traffic unit; and
14 based on said analysis of said second traffic unit, transmit said second traffic unit to said
15 downstream services policer.

1 13. (Cancelled)

1 14. (Currently Amended) A multi-staged services policer comprising:
2 one or more processors;
3 a first services policer to police traffic units according to a first policy for a first class of
4 service;
5 a second services policer to police traffic units according to a second policy for a second
6 class of service; and
7 a third services policer ~~receiving~~to receive output from each of said first services policer
8 and said second services policer, wherein the third services policer ~~affords~~is configured to afford
9 a higher priority to traffic units received from the first services policer than to traffic units
10 received from the second services policer.

1 15. (Currently Amended) The multi-staged services policer of claim 1, wherein the first
2 upstream services policer is to use the feedback from the downstream services policer to cause
3 the first upstream services policer to modify analysis of further traffic units received by the first
4 upstream services policer.

16. (Currently Amended) ~~The multi-staged services policer of claim 15~~ A multi-staged
services policer comprising:
one or more processors;
a downstream services policer;
a first upstream services policer to:
receive a first traffic unit;
analyze said first traffic unit according to a first policy;
based on said analysis, transmit said first traffic unit to said downstream services
policer; and
receive feedback from said downstream services policer, wherein the first
upstream services policer is to use the feedback from the downstream services policer to cause
the upstream services policer to modify analysis of further traffic units received by the upstream
services policer; and, wherein receiving the traffic unit comprises receiving a first traffic unit,
~~and wherein the upstream services policer is a first upstream services policer that analyzes the~~
~~first traffic unit according to a first policy, the multi-staged services policer further comprising:~~
a second upstream services policer to receive second traffic units, analyze the second
traffic units according to a second policy, and based on the analysis according to the second
policy, transmit the second traffic units to the downstream services policer,
wherein the feedback received by the first upstream services policer from the downstream
services policer is in response to receipt of the second traffic units from the second upstream
services policer.

1 17. (Currently Amended) ~~The multi-staged services policer of claim 1~~ A multi-staged services
2 policer comprising:

3 one or more processors;

4 a first downstream services policer; and

5 a first upstream services policer to:

6 receive a first traffic unit;

7 analyze said first traffic unit according to a first policy;

8 based on said analysis, transmit said first traffic unit to said first downstream
9 services policer; and

10 receive feedback from said first downstream services policer; ~~wherein receiving~~
11 ~~the traffic unit comprises receiving a first traffic unit, and wherein the downstream services~~
12 ~~policer is a first downstream services policer, and the upstream services policer is a first~~
13 ~~upstream services policer to analyze the first traffic unit according to a first policy, and wherein~~
14 ~~the multi-staged services policer further comprises:~~

15 a second upstream services policer to receive second traffic units, analyze the second
16 traffic units according to a second policy, and based on the analysis of the second traffic units,
17 transmit the second traffic units to the first downstream services policer;

18 a second downstream services policer; and

19 a third upstream services policer to receive third traffic units, analyze the third traffic
20 units according to a third policy, and based on the analysis of the third traffic units, transmit the
21 third traffic units to the second downstream services policer,

22 wherein the first, second, and third policies are for different types of traffic units.

1 18. (Cancelled)

1 19. (Currently Amended) The multi-staged services policer of claim ~~[[13]]~~14, wherein the
2 ~~downstream~~ third services policer is to send feedback information to the first ~~upstream~~ services
3 policer in response to the ~~amended~~ traffic unit units from the first services policer, wherein the
4 first ~~upstream~~ services policer ~~responds~~ is configured to respond to the feedback information by
5 modifying analysis of further traffic units received by the first ~~upstream~~ services policer.

1 20. (Cancelled)

1 21. (Currently Amended) The multi-staged services policer of claim 14, wherein the third
2 services policer ~~sends~~is configured to send feedback information to the second services policer in
3 response to traffic units received from the first services policer, wherein the second services
4 policer ~~modifies~~is configured to modify analysis of further traffic units received by the second
5 services policer in response to the feedback information.

1 22. (Currently Amended) The multi-staged services policer of claim 1, wherein the
2 downstream services policer includes a first of the processors, [[and]]the first upstream services
3 policer includes a second of the processors, and the second upstream services policer includes a
4 third of the processors.

1 23. (Currently Amended) The multi-staged services policer of claim 1, wherein the
2 downstream and first and second upstream services policers are executable on the one or more
3 processors.

1 24. (New) The method of claim 10, wherein each of the downstream services policer and first
2 and second upstream services policers includes one or more processors.